**Elastic Collisions**

1. A 4.0 kg ball moving to the right at 6.0 m/s collides head on with a stationary 3.0 kg ball initially at rest. If the collision is elastic, determine the speed and direction of each ball after the collision. Draw a meaningful diagram.

2. A 4.0 kg ball moving to the right at 6.0 m/s collides head on with a 3.0 kg ball moving to the left at 4.0 m/s. If the collision is elastic, determine the speed and direction of each ball after the collision. Draw a meaningful diagram.

